

HOT – Industrial Pressure Transmitter

Description

The HOT is a high quality all stainless steel pressure transmitter, intended for use in the measurement of gases and liquids compatible with stainless steel.

With additional EMI / RFI protection, low static and thermal errors and high resistance to shock and vibration as standard, the HOT assures trouble free operation at temperatures up to 125°C. The HOT Piezoresistive sensing element coupled with the latest ASIC circuitry, assures excellent accuracy, choice of high level outputs and long stability, protected within a rugged, stainless steel housing. The HOT high strength stainless steel construction contains no silicone oil and no internal O- rings. Measurements are available in gauge and absolute pressure, with ranges up to 1000 bar and are backed by a one-year warranty.



Features

- High strength, rugged stainless steel design
- Pressure Reference: Gauge
- Piezoresistive sensor
- High resistance to shock and vibration
- Pressure ranges: -1 ... 60 bar, 0 ... 1000 bar
- Signal output: 4 ... 20 mA, 0 ... 10 VDC, 0 ... 5 VDC
- Accuracy @ RT: < 0.5 % FS
- Measuring medium: -40 ... +125 °C
- Electrical connections: DIN EN 175301-803 C
- Pressure connection: G 1/4" Male, 1/4" NPT Male
- IP 65

Applications

- Water and Wastewater Industry
- HVAC & Refrigeration
- Mechanical engineering
- Machine building
- Process control and Automation
- Hydraulics and Pneumatics
- Pumps and Compressors
- Liquid level measurement
- Oxygen & Medical gases pressure measurement
- Harsh environments in the process industry

Specifications

Input Pressure Range

Nominal Pressure	-1 ... 60 bar, 0 ... 1000 bar
Overpressure [Max]	Up to 2x rated pressure
Burst Pressure [Min]	Up to 5x rated pressure
Vacuum resistance	YES

Performance

Accuracy @ RT	% of the range (gauge and vacuum sensors) < 0.5 BFSL \leq 0.125	(incl. nonlinearity, hysteresis, repeatability, zero-offset and final offset acc. to IEC 61298-2)
Non-linearity	% of the range \leq 0.15	
Repeatability	% of the range \leq 0.10	
Stability/year	% of the range \leq 0.10	
Response time (10 ... 90 %)	1 ms	
Pressure cycles	> 10 million	

Environment

Temperature [°C]:

Measuring medium	-40 ... +125
Ambience	-40 ... +105
Storage	-40 ... +125
Compensated range	-20 ... +85

Temperature coefficient within the compensated range:

Mean TC offset	% of the range \leq 0,15 / 10K
Mean TC range	% of the range \leq 0,15 / 10K
Shock	1000 G, 11 msec., 1/2 Sine
Vibration	25 G peak, 20 to 2000 Hz
Ingress protection	IP 65

Electronics

Output	Supply
4 ... 20 mA	10 ... 32 VDC
0 ... 5 VDC	10 ... 32 VDC
0 ... 10 VDC	12 ... 32 VDC
Output impedance	< 100 Ω
Current consumption	< 10 mA
Reverse voltage protection	YES


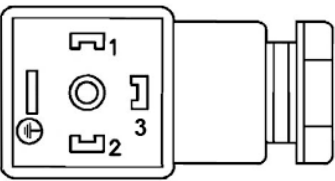
Mechanics

Housing	Stainless steel 304
Wetted parts material	Stainless steel 304
Pressure port	Male - G 1/4", Male - 1/4" NPT

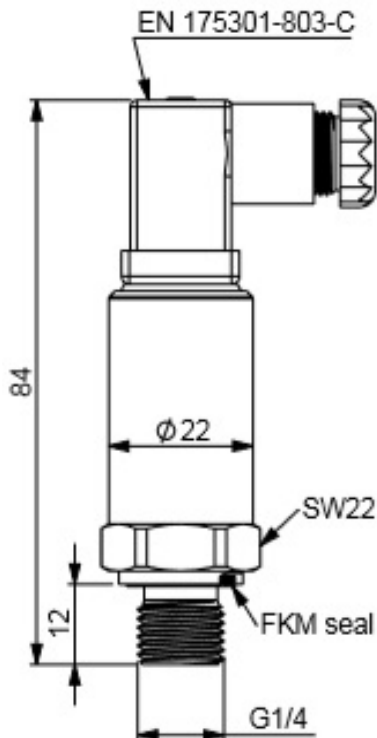
Miscellaneous

Weight	Approx. 140 g
Mounting Force	Max 25 Nm
Calibration	Output is Calibrated at Zero & Full Scale

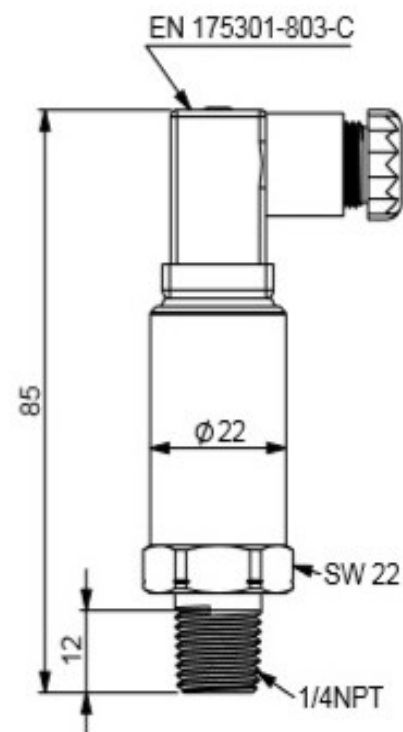
Wiring

Electrical Connection	Output	PIN 1	PIN 2	PIN 3	PIN 4	
 DIN EN 803 175301-C	4 – 20 mA	+ Supply	Current Output -	N/A	-	earth
	0 – 10 VDC	+ Supply	- Supply	Output +	-	earth
	0 – 5 VDC	+ Supply	- Supply	Output +	-	earth

Dimensions



HOT xx xxxx FGCK
(Male - G 1/4")



HOT xx xxxx FLCK
(Male - 1/4" NPT)

Ordering code

HOT

Series

HOT (Industrial Pressure Transmitter)

HOF (Flush Diaphragm Pressure Transmitter)

HOM (Low Pressure Transmitter)

HOD (High Pressure Transmitter)

HOX (Explosion Proof Pressure Transmitter)

Output

4 ... 20 mA / 2-wire

H

4 ... 20 mA / 2-wire / Compound

HC

0 ... 10 V / 3-wire

J

0 ... 10 V / 3-wire / Compound

JC

0 ... 5 V / 3-wire

F

Pressure Range

Please check the tables below

Pressure Unit

bar

F

Kpa

R

psi

P

Pressure connection

Male - NPT 1/4"

L

Male - G 1"

N

Male - G 1/2"

W

Male - G 1/4"

G

Male - M18x1.5"

M

Electrical connection

DIN EN 803-175301-C

C

M12x1 4-pin

M

Pressure type

Gauge

K

Absolute

A

Gauge pressure

Code	Measuring range [bar]	Code	Measuring range [bar]	Code	Measuring range [bar]	Code	Measuring range [bar]
0000	1 ... 0	0006	0 ... 6	0030	0 ... 30	0250	0 ... 250
0001	0 ... 1	0007	0 ... 7	0035	0 ... 35	0300	0 ... 300
001.6	0 ... 1.6	007.5	0 ... 7.5	0040	0 ... 40	0400	0 ... 400
002.5	0 ... 2.5	0010	0 ... 10	0060	0 ... 60	0600	0 ... 600
0003	0 ... 3	0013	0 ... 13	0100	0 ... 100	0700	0 ... 700
0004	0 ... 4	0016	0 ... 16	0160	0 ... 160	0800	0 ... 800
0005	0 ... 5	0025	0 ... 25	0200	0 ... 200	1000	0 ... 1000

Vacuum and +/- measuring range

Code	Measuring range [bar]	Code	Measuring range [bar]	Code	Measuring range [bar]	Code	Measuring range [bar]
000.0	-1 ... 0	0004	-1 ... 4	0010	-1 ... 10	0040	-1 ... 40
000.1	0 ... -1	0005	-1 ... 5	0016	-1 ... 16	0060	-1 ... 60
0001	-1 ... 1	0006	-1 ... 6	0025	-1 ... 25	-	-
0003	-1 ... 3	007.5	-1 ... 7.5	0035	-1 ... 35	-	-